



A.D. 1773 N^o 1056.

S P E C I F I C A T I O N

OF

CHRISTOPHER CHRYSEL.

CONSTRUCTION AND SETTING OF BOILERS.

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CHRYSEL'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, CHRISTOPHER CHRYSEL, of the Parish of Saint George, in the County of Gloucester, Engineer, send greeting.

WHEREAS His most Excellent Majesty King George the Third hath been
5 graciously pleased, by His Letters Patent under the Great Seal of Great Britain, bearing date the Seventh day of November, in the fourteenth year of His said Majesty's reign, to give and grant unto me, the said Christopher Chrysel, my executors, administrators, and assigns, His special licence, full power, sole privilege and authority, that I, the said Christopher Chrysel, my
10 executors, administrators, and assigns, and every of them, by myself or themselves, or by my or their deputy or deputies, servants or agents, or such others as I, the said Christopher Chrysell, my executors, administrators, and assigns, should at any time agree with, and no others, should and lawfully might, from time to time and at all times hereafter during the term of years therein
15 expressed, make, use, exercise, and vend, within that part of Great Britain called England, the Dominion of Wales, and Town of Berwick upon Tweed, and also within the Colonies and Plantations abroad, my new invented
"METHOD OF CONSTRUCTING AND SETTING BOILERS OF ANY DIMENSION FOR THE USE OF FIRE ENGINES, SALT WORKS, BREWHOUSES, DISTILLERS, SOAP-HOUSES, SUGAR-
20 HOUSES, AND SUGAR WORKS," in such manner as to me, my executors, administrators, and assigns, or any of them, should in their discretions seem meet; and that I, the said Christopher Chrysel, my executors, administrators, and assigns, should and lawfully might have and enjoy the whole profit, benefit,

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commodity, and advantage from time to time coming, growing, accruing, and arising by reason of the said Invention, to have, hold, exercise, and enjoy the said licence, powers, priviledges, and advantages therein granted unto me, the said Christopher Chrysel, my executors, administrators, and assigns, for and during and unto the full end and term of fourteen years from the date of the 5 said Letters Patent next and immediately ensuing, and fully to be compleat and ended, according to the Statute in such case made and provided; and whereas, in the said Letters Patent, there is contained a proviso that I, the said Christopher Chrysel, should particularly describe and ascertain the nature of my said Invention, and in what manner the same is performed, by an 10 instrument in writing under my hand and seal, and cause the same to be inrolled in the High Court of Chancery within four calendar months next after the date of the said Letters Patent, as in and by the said Letters Patent, relation being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in obedience to the said Letters Patent, and the 15 proviso therein contained, I, the said Christopher Crysel, do hereby declare my said new invented method of constructing and setting boilers, is made and performed in manner following (that is to say):—

The boilers, coppers, and pans, containing four or more feet deep of water or liquors, are to be changed into shallow boilers of about one foot in depth 20 and of a convenient length and breadth, containing either the same quantity of water or liquors, or double or treble the quantity, which will make no difference in the quantity of fuel required. But in the boilers of the fire engines the depth of the shallow boilers must be about two feet and an half, whereof half a foot is assigned to the depth of the water, and two feet for the 25 confinement of the steam. Thus changing the large deep boilers, coppers, and pans into proportionable shallow boilers is the first part, and of very great advantage, paving the way for the second part, which is properly the principal cause, as it is the means of saving of one half part of the coals and fuel otherwise burnt, and of a quicker dispatch of business in every respect, by a pecu- 30 liar method of setting the said shallow boilers upon a small furnace and serpentine flue contrived in such manner that the fire goes out of the furnace in full flames under the whole bottom of the shallow boiler for about a hundred feet ascending to the top of the chimney. The furnace flue and chimney are according to the smaller or larger dimensions of the shallow boilers in a 35 geometrical proportion one with the other; two regulators are also added, one for regulating the access of the free air, and the other for regulating the exit of the fire flames and smoak. The materials unto furnace flue and chimney are good fire bricks, Stourbridge and Windsor loom; the whole may be fitted

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up and adjusted to any purpose, and different degrees of fire and fuel, such as common pit coals, turf pits, faggots, split wood, and the like, may be used for different intents and purposes. But when candle, coals, coaks, or charcoal are the fuel used, there will be a great advantage by building a coal magazine containing about a ton, more or less, whereby the fire will be constantly supplied without assistance, and will last 24, 36, 48, or 60 hours, according to the given degree of fire, without any addition of fuel during that time, so that the workmen may sleep all night without fear of the fire going out, the boiler growing cold, or the business stopping.

10 In witness whereof, I have hereunto set my hand and seal, the Eighth day of March, in the fourteenth year of the reign of our Sovereign Lord George the Third, by the grace of God of Great Britain, France, and Ireland, King, Defender of the Faith, and so forth, and in the year of our Lord One thousand seven hundred and seventy-four.

15 CHRISTOPHER CRISEL. (L.S.)

Signed, sealed, and delivered (being first duly stamped) in the presence of

20 D. CATLING,
HEN^y CHESTER WYNTER.

AND BE IT REMEMBERED, that on the Eighth day of March, in the year of our Lord 1774, the aforesaid Christopher Chrysel came before our said Lord the King in His Chancery, and acknowledged the Specification aforesaid, and all and everything therein contained and specified, in form
25 above written. And also the Specification aforesaid was stampd according to the tenor of the Statute made in the Sixth year of the reign of the late King and Queen William and Mary of England, and so forth.

Inrolled the Eighth day of March, in the year of our Lord One thousand seven hundred and seventy four.

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